

ANNUAL REPORT  
OF THE  
GOOD NEIGHBOR ENVIRONMENTAL BOARD

A Presidential and Congressional Advisory Committee  
on U.S.-Mexico Border Environmental and Infrastructure  
Issues

April 1997

## EXECUTIVE SUMMARY

The Good Neighbor Environmental Board was created by the Enterprise for the Americas Initiative Act of 1992 (7 U.S. Code Section 5404) to advise the President and the Congress concerning environmental and infrastructure issues and needs within the States contiguous to Mexico. The statute requires the Board to submit an annual report to the President and the Congress. This is the Board's second annual report.

The Act requires that Board membership include representatives from appropriate U.S. Government agencies; from the governments of Arizona, California, New Mexico and Texas; and from private organizations, including community development, academic, health, environmental, and other nongovernmental entities with expertise on environmental and infrastructure problems along the southwest border. The Board has met six times and will meet in September 1997 with its Mexican counterpart, Region 1 of the Mexican National Advisory Council for Sustainable Development.

The U.S.-Mexico border region faces a number of distinctive environmental, demographic and economic challenges. There has been a dramatic surge in population and industrialization over the past 30 years. Over the past 5 years the population has grown about 25 percent, and is projected to double over the next 20 years. Over 400,000 U.S. residents live in *colonias*, 21 counties have been designated as economically distressed, and three of the ten poorest U.S. counties are located in the border region. There are approximately 2,000 *maquiladora* companies in the region, employing more than 600,000 workers, with the highest concentrations in Tijuana and Juarez.

This growth presents very significant environmental, health, natural resources, transportation and housing problems. Solving these problems requires a comprehensive

sustainable development strategy. The Board's second annual report presents additional recommendations for addressing the urgent challenges of the U.S.-Mexico border region.

### **Border XXI Development and Implementation**

The Board endorses the recently issued Border XXI Framework and implementation plan as the latest steps in the continuing strengthening of U.S.-Mexico border cooperation. Border XXI establishes important goals and objectives for the region and for both governments, employs a regional as well as binational approach to issues, demonstrates improving interagency coordination and public participation, and establishes three new areas of binational working group emphasis.

The binational work groups need to be accountable to established objectives and to priority concerns identified by the publics. Implementation and future work plan development must assure substantial, continuous input from publics on both sides of the border. We believe it is also essential to measure the extent to which annual work programs support Border XXI objectives and goals, and the extent to which overall efforts are leading to sustainable development of the border region.

Given that Border XXI's principal goal is to promote sustainable development of the border region, it needs to address effectively the significant impacts of industrial growth on the border environment and to identify mechanisms for greater involvement by all stakeholders in setting priorities and defining approaches. We commend EPA's commitment to incorporate tribes into the implementation and further development of Border XXI, and urge all U.S. agencies to accelerate efforts to include Native American representatives in planning and implementation of programs. The Border XXI process should also more actively involve

academia in establishing research priorities.

Border XXI should be the umbrella process for defining an overall sustainable development strategy for the region, linking binational efforts and coordinating public and private border programs and resources. The Board recommends that Border XXI also address transportation, water resources, commerce and economic development, and natural resources and land use management.

### **Management of Federal Programs**

In order to better understand the scope, purposes and levels of funding of federal agency programs in the border region, the Board obtained available information from several agencies concerning border region projects initiated between 1992 and 1995. Subsequently, the Board analyzed each project using environmental sustainability criteria including geographic scope, extent of community involvement, remediation and prevention objectives, capacity building, inter-governmental and private sector involvement, and information management and access. While some departments were able to provide only partial data, the Board believes that the data and its analysis provide an extremely valuable picture of federal effort in the region, a tool for federal agencies to coordinate efforts in the region, and a sound basis to support preliminary recommendations. The Board will continue to review and report on specific and overall federal effort in the region.

The information provided by the agencies documents more than 400 projects. Projects address air and water quality management, compliance, emergency response, solid and hazardous waste management, pollution prevention, natural resources management, environmental health, information management, transportation, urban development and other infrastructure. The projects focus primarily on technical studies; governmental and community

training and assistance; information collection, data management, and information sharing.

The data reflect a significant commitment to assisting Mexico develop governmental staff and institutional capacity; assisting communities on both sides of the border to improve human health and their environment; meeting water infrastructure needs; and assisting border industry to develop and implement remediation and prevention programs.

The Board commends the significant binational emphasis of many projects, but believes even greater effort is needed to assure truly binational approaches to the issues.

Efforts were apparent in all agencies' programs to provide access to information and training to increase communities' capacity to participate in and influence how federal programs address needs in the region. However, there is limited evidence of participation by the private sector or nongovernmental organizations in most projects.

Given the very high risks associated with hazardous materials, the Board urges expanded efforts to address solid and hazardous waste management and emergency response issues. With respect to the substantial amount of border data collection and information system development, the Board is concerned with the potential for duplication of effort and the high probability that lack of coordination may preclude sharing of information among data bases and broad-based analysis by the agencies.

Closer collaboration is especially needed among the departments in addressing *colonia* infrastructure and natural resources management needs. We support continued movement toward implementing ecosystem wide management strategies and programs in an integrated approach.

We also recommend substantially accelerated efforts to address tribal issues by all agencies,

especially the Indian Health Service and Bureau of Indian Affairs that are charged specifically with these responsibilities.

In addition, the Board recommends greater coordination of U.S. and Mexican government border programs with those of the NAFTA North American Commission for Environmental Cooperation (CEC).

We recommend that the Border XXI Framework and binational work groups establish requirements and processes for formal strategic, project, and budget coordination among agencies and with the public in annual project priority setting and scoping projects.

Better coordination is needed between economic development policies and programs and environmental, natural resources, health, housing and other human service programs. Sustainable development-oriented policies are critical, especially with accelerating economic development on both sides of border and continuing expansion of *maquiladora* companies.

### **Leveraging of Federal Resources**

We urge the governments to look for ways to leverage federal authorities and resources more effectively. Given that federal resources are likely to continue to be inadequate in relation to the magnitude of border problems, we recommend that the U.S. Government encourage development of innovative funding and program management agreements involving multiple federal, state and local agencies.

Effective implementation of border region programs requires a more comprehensive multi year estimate of needs, a long term funding commitment, and better leveraging of existing federal and private resources.

An interagency process is needed that provides more authority to agencies to coordinate and integrate their border program activities, to

budget jointly for cooperative projects, to leverage appropriations, to develop interagency funding agreements, to provide multi-agency grants, and to permit utilization of federal funds in both countries to make projects truly binational and sustainable.

To help the agencies and the Board determine needed changes in direction, we urge an assessment of each individual agency's authorities for providing services to local communities on the border. Different agencies have different authorities, especially related to the border region, that should be clarified and coordinated.

### **Need for New Authorities and Additional Funding**

We urge the President and the Congress to endorse:

- binational funding authority for the Department of Health and Human Services to permit them to address critical transboundary health problems;
- funding for the Department of the Interior to address priority border-specific natural resource protection needs; much of the Department's border states budget goes to routine management of lands;
- increased emphasis on emergency response and hazardous materials management;
- increased emphasis on industrial and community pollution prevention efforts;
- obtaining better binational census and economic development information.
- special tax-exempt infrastructure financing for the four U.S. border states;
- focusing resources from both of the EPA water infrastructure revolving funds; and
- negotiating with the government of Mexico to create a public and private sector fund to support binational

demonstration projects.

We endorse congressional proposals for biennial budgeting and commend the seven year funding commitment established by the three countries for implementation of the NAFTA environmental side agreement.

### **Development of Institutional Approaches**

Because the U.S. and Mexico share many of the border's ecosystems, watersheds and air sheds, binational and regional programs need to be expanded. We recommend that the U.S. and Mexican governments work more closely to implement additional joint transboundary programs involving all levels of governments. We also encourage technical and financial assistance to build on and help transfer successful local-level cross-border initiatives.

We note that the federal government, states and some private foundations have supported pollution prevention training, technical assistance and auditing programs primarily for *maquiladora* companies. We encourage development of additional public-private programs that provide economic incentives for reduction, recycling and pollution prevention on both sides of the border. We also encourage appropriate recognition to companies and programs that are demonstrating voluntary commitment to pollution control, prevention, recycling and reuse.

Implementation of the binational air quality management basin (AQMB) agreement for the El Paso-Juarez airshed is a very important enhancement to the informal sister city and state-to-state arrangements that have developed over the years. We recommend that implementation of the AQMB be evaluated by the governments and the communities to determine if this model may be useful to address other air quality issues as well as other transboundary problems, e.g., water, hazardous waste, health.

The Board commends the Department of

Commerce binational sustainable development program for the Rio Grande that simultaneously addressed economic development and environmental planning and encourages similar border area programs by agencies.

More work is needed to answer critical questions about the location, amount, quality and movement of groundwater. We encourage development of new binational water quantity and ground water management institutional arrangements at key border locations, expanded efforts to collect compatible data, implementation of border wide, binational water conservation programs; and negotiated resolution of domestic and binational allocation issues.

We recommend that federal agencies on both sides of the border improve the efficiency and reliability of notification and monitoring processes for hazardous materials transported across the border and for dealing with environmental emergencies. We recommend that the governments begin addressing immediately the implications and requirements for hazardous waste disposal in the region that will result from termination of the *maquiladora* program in the year 2000.

We commend the accelerated binational efforts to address border health problems, and the proposed 1997 program enhancements addressing dissemination of environmental health information; childhood exposures to pesticides; neural tube defects; lead surveillance and intervention; and training.

The Board's first annual report cited a number of concerns regarding interrelated regional transportation and environment issues. We commend the U.S. Federal Highway Administration for its work with other U.S. agencies and with counterparts in Mexico to coordinate commercial motor carrier safety standards, road signs and signals, truck weights and dimensions, compliance and enforcement activities, processing of commercial vehicles at border crossings; and joint transportation

planning. We also note a number of highway improvement and border crossing projects being developed with both public and private funds.

In addition to governmental and industry funding needs, the Board encourages changes in U.S. tax law to encourage private support to these public purposes, the creation of additional binational foundations, and technical assistance to Mexico to develop a private foundation network.

### **Infrastructure Development**

For the past several years, both sides of the border have experienced significant developmental pressures due to industrialization, migration and population growth.

Environmental, health, housing, transportation and other infrastructure have not kept pace with this development. We believe that the interconnection of environment, health, housing, and transportation infrastructure-related problems makes it imperative that infrastructure issues be addressed more comprehensively.

The Board encourages compilation of a comprehensive inventory of infrastructure needs, developed on a binational basis, to assure coordination of transboundary needs and projects and projecting maximum leveraging of investments on both sides of the border. We also urge comprehensive prioritization of infrastructure needs to support a more rational allocation of limited resources; to identify localities most stressed by economic, environmental, and public health issues; and to communicate priorities to communities competing for funding.

### **BECC/NADBank**

The Border Environment Cooperation Commission (BECC), and the North American Development Bank (NADBank) have the potential to help significantly improve the border environment.

We commend the BECC for incorporating enhanced sustainable development criteria for review of border environmental projects, and urge application of the same types of criteria by other public and private funding entities. We also commend the BECC for initiating a program to assist smaller communities in developing project proposals. We urge that technical assistance also be provided to border communities to help them develop their institutional capacity to manage facilities; we understand that a program to do this is being considered by NADBank. We urge the BECC to continue to streamline its application process to encourage more rapid certification of projects to NADBank and other funding sources.

The NADBank has made very few loans during its first two years of existence. A major cause are provisions in the NADBank charter requiring it to charge an above-market rate of interest. This requirement precludes the neediest communities on both sides of the border from accessing NADBank funds. We strongly urge the governments to re-negotiate the NADBank's charter to authorize reduction of its interest rate.

We urge the NADBank to improve its communication with border communities, and to work with the BECC to implement a coordinated outreach effort.

BECC and NADBank need to encourage greater use of alternative and innovative technologies. The BECC should also emphasize low water-use treatment processes, especially in areas where there are water shortages.

### **Colonias and Rural Areas**

The rate of continuing urbanization in colonias and rural areas, and the absence of proper urban planning and local zoning controls, is threatening the ability of the governments to provide essential infrastructure. Although more than \$500 million has been allocated since 1991,

costs for basic water service to colonias in Texas and New Mexico are still estimated at more than \$500 million, and there are comparable settlements in Arizona and California. These estimates do not address critical air, hazardous and solid waste, transportation, or housing infrastructure needs.

We recommend that federal, state and local agencies providing infrastructure funding recognize colonias and similar substandard developments in all four border states, and coordinate their individual funding programs for maximum environmental benefit. We recommend that federal grant and low cost loan assistance be continued at existing levels for infrastructure, health facilities and training in U.S. colonias for at least the next ten years. We also continue to recommend that border state wastewater revolving funds allocate a major portion of SRF funds to *border* infrastructure needs.

The Board believes there is a tremendous need, and potential, for greater public-private funding and for privatization of hazardous waste handling, solid waste management, and water quality infrastructure projects. In addition, private entities that have contributed to the environmental and public health problems and that have benefited from NAFTA implementation should bear more of the cost.

The Board notes that there has been considerable U.S. government investment in development of related economic infrastructure, including international trade routes, bridges and highways. We urge that the governments assure that investments in environmental and economic infrastructure be managed to help assure balanced and sustainable economic development.

We encourage the U.S. to work with Mexico to promote legislation to authorize municipal bonding authority for Mexican communities. We also urge the U.S. government to consider providing tax-free status for public bonds issued in the U.S. for cross border projects and other

incentives to encourage public-private and privatization efforts.

The Board continues to recommend the development of eco-industrial parks along the border, sited at appropriate locations, to reduce pollution and costs and to support clean economic development.

The Board notes that the shortage of adequate housing underlies many of the border's environmental and public health problems. Establishment and enforcement of zoning practices, and creative financing through public-private cooperation, are needed on both sides of the border to ease this crisis. .

### **Meeting Information Needs**

There is a lack of needed information and awareness by residents on both sides of the border, as well as the governments, concerning border area problems and options for addressing these problems. Access to information is a critical prerequisite to effective community participation in setting priorities, selecting the most feasible and comprehensive approaches to environmental, natural resource, public health and related problems; and locating financial and technical assistance.

We encourage more outreach coordination among federal agencies, state agencies, local governments, Indian Nations, and community groups on both sides of the border. We recommend that data be made accessible to the public by state and federal government agencies through Internet and other wide-net systems along the border and commend several federal agencies for establishing Internet Web sites.

A recent report anticipates that in 20 years one-third of the Texas population will not finish high school. The Board recommends more emphasis on education for border communities and meeting the tremendous need for resources for local schools.

Both countries need to obtain accurate data on population growth trends, especially given the flux of people in and through the border zone. More adequate information is also needed linking population trends and available resources, including identifying the “carrying capacity” of the border region. The lack of information concerning long-term population trends limits the effectiveness of Border XXI in planning for needed infrastructure and programs.

Considerable research is being conducted by U.S. and Mexican colleges and universities in the border region. Academia and funding sources must assure that the research is relevant and the results accessible to the communities, other academics, and the governments.

### **Coordination with the Mexican Advisory Council for Sustainable Development**

The Board and its Mexican counterpart, Region 1 of the Mexican National Advisory Council for Sustainable Development, have established ongoing communication. The two advisory committees have agreed to meet together in September 1997 and annually to coordinate activities.

### **Public Input**

At each meeting, the agenda includes time for members of the public to brief the Board on concerns as well as on local and regional initiatives to address key problems. We commend the number of initiatives that demonstrate the commitment of border residents to work together to improve the environment and to promote sustainable development of the U.S.-Mexico border region.



## **INTRODUCTION**

The Good Neighbor Environmental Board was created by the Enterprise for the Americas Initiative Act of 1992 (7 U.S. Code Section 5404) to advise the President and the Congress concerning environmental and infrastructure issues and needs within the States contiguous to Mexico. The statute requires the Board to submit an annual report to the President and the Congress. The Board's first annual report was submitted in October 1995. This is the Board's second annual report.

The Act requires that Board membership include representatives from appropriate U.S. Government agencies; from the governments of Arizona, California, New Mexico and Texas; and from private organizations, including community development, academic, health, environmental, and other nongovernmental entities with expertise on environmental and infrastructure problems along the southwest border. A list of members is provided in Appendix A.

A Presidential Executive Order delegates implementation authority to the Administrator of the Environmental Protection Agency (EPA). The Board operates under the Federal Advisory Committee Act and meets at least twice annually at locations along the U.S.-Mexico border. The Board has met six times: September, 1994 at McAllen, Texas; January, 1995 at San Diego, California; June, 1995 at Tucson, Arizona; April, 1996 at Las Cruces, New Mexico; September, 1996 at San Diego, California; and February, 1997 at El Paso, Texas. In September 1997, the Board and its Mexican counterpart, Region 1 of the Mexican National Advisory Council for Sustainable Development, will initiate annual joint meetings of the two advisory committees.

## **ENVIRONMENTAL BOARD**

The Board envisions its roles as:

- Advising the U.S. Federal Government and Congress regarding environmental and infrastructure issues and needs.
- Promoting sustainable development for the border region by recommending balanced approaches to environmental, infrastructure, public health, and economic development issues;
- Promoting improved coordination of federal programs and resources in the border region.
- Advocating for and representing U.S. residents of the border region.
- Encouraging the development, use and dissemination of environmental technologies and financing mechanisms appropriate to the unique circumstances of the region.

## **ROLES OF THE GOOD NEIGHBOR**

## **THE CHALLENGES**

As a region, the U.S.-Mexico border area faces a number of distinctive environmental, demographic and economic challenges:

- The 2,000 mile U.S. - Mexico border represents a politically drawn line that bisects ecosystems. Air, water, fauna and flora move back and forth, not recognizing these political boundaries. Population growth, development, water consumption, and air and water pollution are stressing already fragile, arid ecosystems. Rural areas have not escaped these problems.
- The region is currently home to 10.5 million people; about 6.2 million live in the US and 4.3 million in Mexico. 90 percent of residents live in urban areas; more than half of the people live in the San Diego/Tijuana and El Paso/Juarez metropolitan areas. Over the past five years the population has grown about 25 percent, and is projected to double over the next 20 years
- More than 20 percent of U.S. citizens in the region live below the poverty line, almost double the U.S. average. Over 400,000 U.S. residents live in *colonias*. 21 counties have been designated as economically distressed; 3 of the 10 poorest U.S. counties are located in the region;
- There are approximately 2,000 *maquiladora* companies in the region, employing more than 600,000 workers, with the highest concentrations in Tijuana and Juarez;
- All U.S. sister cities meet basic water treatment requirements; this is not true for the more than 400,000 people who live in U.S. *colonias*. In Mexico, existing water treatment capacity meets only 34 percent of total needs. There is considerable reliance on groundwater, sources of which are experiencing tremendous development and agricultural use pressures. Critical water shortages are expected within the next five years in most industrialized areas;

- Essentially all of the major border cities are out of compliance with at least two major air quality requirements, especially small particulates, carbon monoxide and ozone;
- Hazardous waste problems include illegal transboundary shipment of hazardous wastes, improper disposal, inactive and abandoned dump sites, and improper management of open sites;
- With respect to health problems, people in the border region are exposed to heavy metals, lead, hazardous wastes, raw sewage, pesticides, etc. There is considerable evidence of major respiratory diseases, elevated blood lead levels in children; multiple myeloma, lupus, hepatitis, tuberculosis, gastrointestinal diseases, and pesticides poisonings.
- There are approximately 85 threatened or endangered species in the border area; border ecosystems support more than 450 rare or endemic species.

Given these problems, the Board continues to encourage both governments to:

- Recognize that effectively addressing border environmental issues requires simultaneous efforts regarding natural resources, health, housing, transportation and other infrastructure needs;
- Establish a long-term, comprehensive, integrated, and regional approach to planning to sustain a healthy environment and economy;
- Address border problems in a binational context;
- Coordinate and optimize government resources at all levels;
- Encourage public-private partnerships

and privatization to address infrastructure needs;

- Promote pollution prevention in concert with industry, community stakeholders, and enforcement personnel;
- Help colonias, smaller communities and unincorporated rural areas of the border region to develop their human, community, and infrastructure resources;
- Ensure that planning, implementation and evaluation address the needs of Native Americans and other populations that might be disproportionately affected by environmental contamination;
- Increase the accessibility of relevant data and information to border citizens and among governments.

## **BORDER XXI DEVELOPMENT AND IMPLEMENTATION**

The issuance in January, 1997 of the Border XXI Framework and annual implementation plan represents the latest steps in the continuing strengthening of U.S.- Mexico cooperation regarding the nearly 2,000 mile shared border.

The Border XXI Framework is much more comprehensive than the predecessor Integrated Border Environmental Plan issued in 1992. It establishes important goals for the region and for the governments themselves; it establishes five year implementation objectives for each of the nine focus areas, and an annual work planning process; it employs a regional as well as binational approach to issues; it demonstrates substantially improved interagency and federal-state coordination and public participation; and it establishes three new areas of emphasis-- natural resources, environmental health, and information management--for a total of nine. The Board commends the governments for the improvements in the development of Border XXI.

We applaud the establishment of five regional sub-components of Border XXI to help highlight issues and needs that are specific to areas of the border region. While the Border XXI document will continue to require further development of the regional sections, these sub-parts provide a mechanism to help set concrete priorities within each region and to enhance community and local government participation in addressing specific regional issues. The establishment of these regions will make it even more critical that the nine subject area work groups coordinate with each other concerning specific regional issues and priorities.

### **Operation of Binational Work Groups**

Because the nine binational work groups are central to ongoing development and implementation of the plan, they need to be accountable to overall Framework goals and

objectives, to issue area and regional objectives, and to priority concerns identified by the public and state and local governments. Border XXI's binational goals and objectives must guide the work groups' priorities and budgets--not vice versa--and the annual work plans must incorporate public priorities more effectively.

The Board recommends that the U.S. and Mexican national coordinators charge the nine binational working groups, and possible regional sub-groups, with assuring clear connections between Border XXI goals, multi year objectives and annual work plan priorities, and with an evaluation role to monitor implementation. They also need to assure that interested groups have real input into planning and implementation processes. We specifically recommend that the new Information Working Group first identify what information already exists, systematize its availability, and define ways to deliver information more effectively to border communities.

**We recommend that 1) the U.S. and Mexican national coordinators establish regional sub work groups that mirror the Border XXI organization; 2) officials designated by state and local governments, nongovernmental organizations, tribes, and industry participate as members of each geographic working group in the near term, and as members of the border wide work groups in the longer term; at least 25 percent of the geographic work group members should be private citizens; 3) establish clear mechanisms for consideration of regional work group priorities by the full working groups; and 4) governments publicize the names and affiliations of work group members and project management officials to improve their accessibility and accountability to state and community officials.**

#### **Linking Goals, Objectives, Action Plans, Reporting and Evaluation:**

We believe it is essential to measure the extent to which annual work programs support Border XXI objectives and goals, and the extent to

which overall efforts are leading to sustainable development of the border region. **Relevant performance and environmental measures need to be agreed binationally against which progress can be assessed and work program adjustments made based on actual accomplishments year to year.** The Board understands that the U.S.-Mexico border program is one of the U.S. government's pilot programs under the new Government Performance Review and Accountability Act (GPRA); we will be happy to comment on proposed environmental sustainability benchmarks. We also note that a joint conference was held by EPA and the Mexican statistical agency (INEGI) to develop measures of progress for the border region.

#### **Board Participation in Border XXI Implementation**

In addition to its statutory responsibilities for advising the President and the Congress, the Good Neighbor Environmental Board has been designated as the lead U.S. government advisory body on development and implementation of the Border XXI program. In this capacity, the Board has key roles to advise on formulation of plan structure and priorities, and to recommend measures for monitoring its implementation, including evaluating the extent and quality of public participation. Members of the Board expect to attend the annual National Coordinators meeting, to be briefed by the chairs of each work group on the status of implementation and on development of the upcoming year's work plan, and to comment.

The Board wants to play a larger communication role to help incorporate public concerns into specific initiatives related to ongoing Border XXI development. **The Board requests that a committee member be identified to serve as a public liaison on each of the nine work groups.**

#### **Public Participation and Reporting**

**The Board strongly believes that Border XXI implementation and annual work plan**

**development must assure substantial, continuous, and informed input from communities on both sides of the border and from all segments of the public.** Better coordination, communication and planning among state and local governments, communities, Native Americans, and the private sector on both sides of the border could have created important opportunities to leverage programs and funds, avoid redundant programs, and assure binationally consistent methods and procedures.

Despite an improved public outreach process, the Board emphasizes the need for the federal governments and the work group chairs to assure that state and local government and community priorities are seriously considered in development of annual implementation plans. The Board believes that very few changes were made to the proposed 1996 implementation plan as a result of the public comment process. We are concerned that the 1997 Border XXI implementation plans are essentially final at the time of this report, but there has been no opportunity for the Board or the public to participate in their development. **The public must be consulted concerning work plan priorities. We recommend that each of the nine working groups open their draft annual plans for public comment, including use of both electronic means and mailing lists.**

We feel strongly that “opportunity to comment” is not “public participation,” and emphasize that the process of public input is not simply seeking public comment, but rather an ongoing give-and-take that educates and gives the public ownership of problems and solutions. While we recognize the need for specific public comment deadlines related to annual budget cycles, **the Board believes Border XXI must be “a living document” and endorses an ongoing public comment process to encourage the public to voice opinions at any time regarding implementation of the Border XXI plan.**

**In addition to the formal biennial summary report on Border XXI implementation, the governments should make available to the**

**working groups and the public an annual compilation of public comments received. We also recommend that, every four years, federal agencies, the Good Neighbor Environmental Board and our Mexican counterpart, sponsor a binational border-wide conference to review the status of achievement of the objectives outlined in the Framework.** The conference should be binational and both public advisory committees should have an active role with community groups to review the goals and objectives of the work.

**Business and Industry Involvement:** Given that Border XXI's principal goal is to address economic development and environmental issues in a holistic approach, **Border XXI needs to address more effectively the significant impacts of industrial growth on the border environment and to identify mechanisms for greater participation by industry.** Unfortunately, industrial interests on both sides of the border have played a very minor role in formulation of border objectives and programs. **We recommend that selected business and industry representatives, from regional chambers of commerce, the Border Trade Alliance and *maquiladoras* be asked to participate in regional work groups.**

**Native American Nations Involvement:** There are some 25 Indian Nations that have lands and peoples adjoining the border, and they must be part of the planning process. **We urge the U.S. to follow through with verbal commitments to accelerate efforts to include Native American representatives in environmental and health planning activities and implementation of programs.** We commend EPA's commitment to lead development of a strategy for incorporating tribes into implementation and further development of Border XXI, and for committing to tribes, whose environmental needs are very large, 10 percent of the \$100,000,000 it received in 1996 for construction of border environmental infrastructure.

**Coverage of Additional Priority Issues:**

**The Board recommends that Border XXI continue to expand coverage and integration of issue areas. Border XXI should be the umbrella process for defining an overall sustainable development strategy for the region, linking binational efforts, and coordinating public and private border programs and resources.**

Transportation: Reiterating last year's report, the Board believes that Border XXI needs to address transportation issues. We also endorse the need for a comprehensive, cross-border transportation planning process, as envisioned by the U.S.-Mexico Joint Working Committee for Binational Transportation Planning, in coordination with local, state and regional efforts.

Water Resources: While Border XXI addresses water quality issues in great depth, it does not explicitly address water quantity issues. We recognize that groundwater management is a very difficult issue because of legal complexities and information limitations, but groundwater is one of the most critical issues facing the water-short, agricultural, and rapidly industrializing sections of the border region. We recommend that Border XXI work groups specifically address water quantity issues and that the plan emphasize strategies to encourage water conservation and reuse.

Commerce and Economic Development: We recommend that Border XXI provide coordination of programs to address local and regional economic development and environmental issues through better coordination of programs managed by the U.S. Department of Commerce and its Mexican counterpart. We emphasize particularly the need for census agencies to obtain population and economic data on both sides of the border and to coordinate economic development priorities with those of other federal environmental, natural resources, transportation and housing agencies. We note that representatives of the Department's International Trade Administration and Economic Development Administration are participating on the Board.

Natural Resources: Border XXI work planning needs to begin identifying crucial "hot-spot" areas for priority natural resource protection and conservation projects. Border XXI also needs to increase emphasis on coastal issues and in-stream-flow issues.

We urge that officials of the federal drug interdiction agencies meet with federal natural resources management agencies to discuss revised drug interdiction practices that will reduce negative impacts on fragile ecosystems and species.

Land Use: We believe there is a need for development of a long-term land use plan along the border incorporating sustainability concerns. Industrial, agricultural, human, and natural and biological realities all need to be considered in economic decision-making. Industrial development strategies as well as agricultural practices need to take into account the sustainability of the natural resources, e.g., efforts to attract industries that use a lot of water to water-starved parts of the border and attempts to grow alfalfa in the desert make little environmental or economic sense.

In addition, despite the fact that over 37 percent of the land on the U.S. side of the border is under some form of federal protected status, until recently there has been little effort at cooperatively managing these lands as the complex, interconnected ecosystems they are.

Research Needs: The Border XXI process should more actively involve academia and should be used to identify research needs cooperatively with the academic community.

## **MANAGEMENT OF FEDERAL PROGRAMS**

In order to better understand the scope, purposes and levels of funding of federal agency programs in the border region, the Board last year requested information concerning border region programs, projects and budgets from each of the eight federal agencies participating on the

advisory committee. Each of the agencies submitted available information covering work initiated between 1992 and 1995.

The Board sees one of its essential roles as promoter of a paradigm shift to sustainable development of the border region. We evaluated the project information provided by the agencies against positive environmental sustainability criteria developed by the Board, including regional and ecosystem scope, extent of community involvement, remediation and prevention objectives, types of capacity building, levels of intergovernmental and private sector involvement, and information access. The Board will continue to report on the progress of federal and other efforts in the paradigm shift to sustainability of development in the region.

As caveats to the analysis, the data available from the agencies were quite variable in coverage and level of detail. Some departments were able to provide only partial data largely because their internal tracking systems do not report border-specific activities or resources separately from national programs that have border-region aspects. In addition, project and budget data related to 1995 and more recent activity is incomplete due to funding uncertainties in all agencies at the time data was compiled.

Despite the caveats, the Board believes that the data and analysis provide a unique and extremely valuable view of federal effort in the region, a unique tool for federal agencies to coordinate federal effort in the region, and a sound basis to support the following recommendations. Each of the departments and agencies have agreed that compilation of this information will continue to be very valuable for improving interagency coordination and for increasing leveraging of existing statutory authorities and program budgets. The Board has asked each of the departments to provide updated project and budget information to enable it to continue to review and report on specific and overall federal effort in the region. The Board also intends to incorporate information from the Border Environment Cooperation Commission, and from the four border states concerning state-

funded programs.

The information provided by the agencies documents approximately 400 projects implemented since 1992. The Environmental Protection Agency leads with 142 projects, followed by Interior with 117 projects, Commerce with 51 projects, and Health and Human Services (HHS) with 25 projects listed, although a significant number of individual HHS research projects were consolidated in the matrix. Of the others, the International Boundary and Water Commission cited 12 projects, Transportation 10, Housing and Urban Development 9, Agriculture 5, and State Department 2 projects. Each of these latter agencies have advised that they have funded additional projects that they will report in future updates.

Reported projects address both very specific and broad issues related to air and water quality management, compliance, emergency response, solid and hazardous waste management, pollution prevention, natural resources management, environmental health, information management, transportation, urban development and other infrastructure. The projects have focused primarily on technical studies; governmental and community training and assistance; information collection, data management, and information sharing.

Examples of federally funded projects include local and regional air quality studies; air quality management and hazardous waste compliance training for Mexican government officials; training and technical assistance for *maquiladora* companies; electronic transfer and sharing of compliance data between federal agencies in both countries; survey of sister city emergency planning needs; training of health professionals; community health outreach in colonias; a Lower Rio Grande Valley environmental health exposure study; delivery of Indian health services; monitoring to obtain environmental, natural resources, health information; providing information to Mexican officials regarding pesticides handling, siting of hazardous waste facilities, and enforcement policies; assessment

and management of natural and biological resources; development of natural resources education materials; technical assistance to government and industry to establish pollution prevention programs; development of solid waste management infrastructure in colonias; exchange of information between countries on siting and managing solid and hazardous waste facilities; monitoring to measure water quality trends and to assess groundwater supply and contamination; construction of water management systems for *colonias*; studies to characterize watersheds; technical assistance to small communities on managing water and wastewater treatment facilities; monitoring movement of hazardous wastes across the border; a study of cumulative U.S. impacts of Rio Grande Bridge crossings and possible effects of future permitting; and policy coordination with Mexico on transportation networks between the two countries.

The data reflect a significant commitment to assisting Mexico develop governmental staff and institutional capacity; assisting communities on both sides of the border improve human health and their environment; meeting water infrastructure needs; and assisting border industry to develop and implement remediation and prevention programs.

### **Geographic Scope**

Over 40 percent of reported projects are binational, with 12 entirely focused in Mexico. Approximately one-third of the projects reported are multi state or border wide. The rest of the projects are focused locally or regionally in the four states: 81 projects in Texas; 74 projects in Arizona; 54 projects in California; and 34 projects in New Mexico.

There is limited evidence of ecosystem-level effort, although there are notable projects addressing airsheds, watersheds and nature preserves, e.g., the El Paso-Juarez airshed, the Sonoran Desert, Big Bend National Park, and Biosphere Reserve.

The Board commends the significant binational

emphasis of many projects, but believes even greater effort is needed to assure truly binational approaches to the issues.

### **Capacity Building**

The Board's sustainability criteria for community involvement is difficult to measure and meet, but represent valuable indicators of the authenticity of public involvement.

While human and institutional capacity building efforts were apparent in all agencies' programs, the members have concerns with the commendable, but limited, emphasis on *informing* the public about the programs being planned and conducted, as opposed to making commitments to adjust priorities and resources based on input from the communities. There is very limited evidence of effective participation by the private sector or nongovernmental organizations in most of the projects. We strongly encourage each project manager to actively engage the communities, nongovernmental organizations, academia, and the private sector in project design and implementation. We cannot overstate the importance of this relationship-building in achieving successful U.S. and binational efforts.

### **Remediation and Prevention**

Given the severity of existing environmental and health-related problems, there is a heavy emphasis on remediation. At the same time, the Board sees a positive trend toward parallel emphasis on prevention of pollution and encourages greater emphasis on prevention strategies in future projects.

### **Institutional Development**

Development of effective community institutions on both sides of the border is equal in importance to building infrastructure capacity. Infrastructure will fail if local governments are unable to meet the associated financial and maintenance requirements and to assure an informed community that supports environmental



and public health requirements.

We are very concerned with the relatively limited resources associated with solid and hazardous waste management and emergency response issues. There are very high risks associated with the amounts of hazardous materials being used and moved through this urban region.

We reemphasize the need for greater federal emphasis on addressing Native American environmental and health issues. The Board identified a small number of projects dealing with Indian health and environmental issues.

### **Information Management**

The Board identified very large investments in data collection and information system development, especially Geographic Information Systems. The Board is concerned with the extent of duplication of effort and the high probability that lack of overall coordination may preclude sharing of information among data bases and broad-based analysis. The Board is also concerned that there is relatively little apparent priority for providing and explaining information to communities and nongovernmental organizations on both sides of the border. These issues need continuing emphasis by the binational Border XXI Information Work Group.

### **Interagency and Intergovernmental Coordination**

**Effective implementation of border region programs requires a more comprehensive multi year estimate of needs, a long term funding commitment, and better leveraging of existing federal and private resources.**

**An interagency process is needed that provides more authority to agencies to coordinate and integrate their border program and project activities, to budget jointly for cooperative projects, to leverage appropriations, to develop interagency funding agreements, to provide multi-agency grants, and to permit utilization of federal**

**funds in both countries to make projects truly binational and sustainable.** We urge the Congress to consider creating legislation which empowers federal agencies to implement more creative funding approaches to resolving U.S.-Mexico border issues.

**Closer collaboration is especially needed among the departments in addressing colonia infrastructure and natural resources management needs. We support continued movement toward implementing ecosystem wide management strategies and programs. We also recommend substantially accelerated efforts to address tribal issues by all agencies, especially the Indian Health Service and Bureau of Indian Affairs that are charged specifically with these responsibilities. In addition, the Board recommends greater coordination of U.S. and Mexican government border programs with those of the NAFTA North American Commission for Environmental Cooperation (CEC).**

To help the agencies and the Board determine needed changes in direction, we urge an assessment of each individual agency's authorities for providing services to local communities on the border. Different agencies have different authorities, especially related to the border region, that should be summarized, clarified and coordinated.

**We recommend that the Border XXI Framework establish requirements for formal strategic, project, and budget coordination among agencies in annual project priority setting and scoping.**

**Sustainable development-oriented policies and better coordination are needed to link federal economic development policies and programs with environmental, natural resources, health and housing policies and programs.**

### **Leveraging of Federal Resources**

We urge the governments to leverage existing federal authorities and resources more effectively. Given that resources will continue to

be inadequate in relation to the magnitude of border problems, **we recommend that the U.S. Government authorize and promote innovative funding and program management approaches involving multiple federal, state and local agencies.**

### **Need for New Authorities and Additional Funding**

**We urge the President and the Congress to consider:**

- binational funding authority for the Department of Health and Human Services to permit them to address critical transboundary health problems;
- additional funding for the Department of the Interior to address priority border-specific natural resource protection needs;
- increased emphasis on emergency response and hazardous materials management;
- increased funding for industrial and community pollution prevention efforts;
- obtaining better binational census and economic development information.
- special tax-exempt infrastructure financing for the U.S. border states;
- focusing resources to the border from the federal and state water infrastructure revolving funds; and
- creating with the government of Mexico a public/private fund for binational demonstration projects.

While we do not anticipate multi year funding authorities for the border region in the near term, we endorse congressional proposals for biennial budgeting and commend the multi year funding commitment by the three NAFTA countries for implementation of the environmental side agreement. To the extent it becomes feasible, we support negotiation of binational multiyear funding commitments to address sustainable development priorities for the border region.

### **DEVELOPMENT OF INSTITUTIONAL ARRANGEMENTS**

### **Binational Approaches**

**Because the U.S. and Mexico share many ecosystems, watersheds and air sheds, binational and regional programs need to be expanded.** We note that many U.S.-funded projects have been binational and commend the emphasis in Border XXI on regional and binational approaches.

**We recommend that the U.S. and Mexican governments work more closely to develop additional joint transboundary programs, involving representatives from all levels of governments.** For binational projects generally, we note the importance of clear standards, definitions and responsibilities, and a high level of sensitivity to the different technological, cultural, organizational situations. We also encourage technical and financial assistance to build on and help transfer successful community-level cross-border programs.

### **Enhancing Industry's Role**

We note that the federal government, states and some private foundations have supported pollution prevention training, technical assistance and auditing programs focused primarily on maquiladora companies. We endorse this training, but also encourage the parties to emphasize the value of these initiatives for economic reasons.

The Board believes that private industry has responsibilities to the border environment and to the communities where they operate that goes beyond a profit motive. **There is a growing number of companies that are demonstrating a strong commitment to pollution control, prevention, recycling and reuse. We encourage the governments and communities to recognize them and to help communicate these successes.**

**We encourage development of public-private sector programs that provide economic incentives for reduction, recycling and pollution prevention on both sides of the**

**border.** We especially recommend consideration of a deposit refund system for transborder shipments of hazardous waste that could reduce the need for government inspection programs.

We commend the WasteWiSe Project, a binational public/private project in the San Diego-Tijuana region, that is improving cross-border trade in recyclables and identifying ways to expand binational markets for recycled materials. We recognize Sony Corporation's award-winning recycling program focusing on design-for-the-environment in its products and facilities.

### **Airshed Planning**

Consistent with our recommendation last year, **the Board commends implementation of the binational Air Quality Management Basin (AQMB) and Joint Air Quality Advisory Committee for the El Paso-Juarez airshed.** This formal binational regional approach to addressing environmental problems, with significant public oversight, is a very important enhancement to the informal community-to-community and state-to-state arrangements that have been developed over the years. **We recommend that implementation of the AQMB be evaluated by the governments and the communities to determine if this model may be useful for addressing air quality issues elsewhere in the region, as well as for other transboundary environmental problems, such as water, hazardous waste, and health.** We note that binational airshed management arrangements are already being extended to air and water quality issues in the U.S.-Canada border region.

The Carbon 1 and 2 plants in Mexico are now on-line; there are proposals for two additional plants. **The Board urges a truly binational effort to solve the problems of Carbon 1 and 2**, including the need for U.S. government and private funds to reduce emissions from these plants and from other sources on both sides of the border which are affecting air quality in the region. The visibility problems at Big Bend

National Park should be addressed on a multi-jurisdictional basis using the Grand Canyon Visibility Transport Commission as a model.

We also continue to encourage the governments to address larger issues related to use of fossil fuels versus alternative energy sources.

### **Watershed Planning**

The Board commends the Department of Commerce for its successful binational sustainable development study of the Rio Grande River that addressed economic development, water use, and watershed planning. We recommend this kind of integrated planning as a possible model for other air shed and watershed areas.

### **Water Quantity Management and Water Conservation**

Ground water is a finite resource, yet insufficient data, particularly binational data, exists. It is assumed that many communities are pumping more groundwater than can be recharged.

Much greater focus is needed on water quantity issues. In many locations along both sides of the border, there are still critical questions about the location, amount, quality and movement of groundwater, and ecosystem relationships. **We urge the two governments to work closely with the International Boundary and Water Commission (IBWC) which has specific binational treaty mandates, and with U.S. border states to collect essential water quantity data, using joint protocols, and to discuss water allocation issues.**

**We encourage further development of new binational water quantity and ground water management institutional arrangements at key locations along the border** that combine the planning and public oversight aspects of the new El Paso-Ciudad Juarez Air Quality Management Basin and Joint Advisory Committee, and the implementation and management aspects of the Rio Grande River Water Master.

**We strongly recommend implementation of border wide, binational water conservation programs to conserve existing ground and surface water sources.** Because many water quantity problems relate to agricultural practices, the Board recommends greater binational efforts to encourage use of “best management practices” e.g., drip irrigation in irrigation water management. We also urge the BECC and NADBank to require local water conservation programs as preconditions to certification and receipt of funding.

We also encourage greater emphasis on water conservation education. A water conservation education program in the Rio Grande Valley, where 80 percent of the available water is used for irrigation, is teaching children on both sides of the border about conservation of shared resources. We urge each level of government to support educational programs in schools, for farmers, and for the general public focused on water quality and quantity management.

#### **Hazardous Materials and Emergency Response**

**We recommend that federal agencies on both sides of the border improve the efficiency and reliability of notification and monitoring of hazardous materials transported across the border. We also recommend establishment of effective joint federal and state emergency response programs for dealing with border environmental emergencies.** The Board notes that there has been progress in implementing use of HazTraks, a binational computer system to monitor truck cargoes. While we are aware that each of the individual U.S. states have responsibility for enforcing truck safety standards, federal agencies in both countries should help coordinate and establish more effective emergency response capabilities to deal with accidents involving cross-border traffic. Models for these kinds of arrangements exist along the U.S.-Canada border.

The Board commends a federal-state-local pilot program designating specific border crossings for commercial truck traffic only, reducing

environmental and health impacts and the risk of environmental emergencies. For example, trucks carrying hazardous materials may not travel through downtown Laredo, McAllen and Reynosa. This program is now being extended to other border crossing locations.

**We urge development of binational agreements for addressing environmental emergencies that facilitate the rapid movement of emergency response personnel and equipment across the border, improved availability of emergency equipment at crossings, development and testing of response plans, improved tracking of cargoes prior to inspection, and thorough training of inspectors on both sides of the border.**

There is still a serious, continuing need for emergency response and fire control equipment and computers on both sides of the border, especially in communities in Mexico. **Expanded efforts are needed to obtain donations of usable equipment and to simplify transfer of this equipment to Mexico.** Unfortunately, Mexico imposes duties on transfer of some of this equipment across the border; we urge agencies to consider providing equipment on permanent loan to Mexican entities to avoid these costs. We understand that Mexico has requested funds from NADBank to enable them to acquire critically needed emergency response equipment.

**We urge the governments to begin addressing immediately the implications and requirements for hazardous waste disposal in the border region that will result from the termination of the *maquiladora* program in 2000.** After the termination of the program, wastes will no longer need to be repatriated from Mexico to the U.S., requiring permitted waste disposal and treatment facilities in Mexico that do not currently exist.

#### **Health**

We note several steps that have been taken over the past year to implement Board recommendations regarding border

environmental health institutional needs. A formal binational working group has been created under the auspices of the U.S.-Mexico Binational Commission; the Interagency Coordinating Committee for Environmental Health-U.S.-Mexico Border (involving the Public Health Service, EPA, all border state environmental and health representatives, and the Pan American Health Organization) is now binational, including the director of the Office of Environmental Health, Mexican Ministry of Health and six border environmental health officers, as well as representatives from SEMARNAP. The Texas Department of Health has exhibited excellent leadership on the border wide tuberculosis control program which involves all 10 border state health officers, federal representation from Mexico and the U.S., the American Lung Association, the Texas Medical Association, the Pan American Health Organization, the U.S.-Mexico Border Health Association, Project Hope, and the National Heritage Insurance Company. The project is accelerating sharing of computerized information, education on both sides of the border, and state-to-state agreements. In addition, Department of Health and Human Services agencies are providing training and the Pan American Health Organization Ecology Institute in Mexico is developing occupational and environmental health training programs; a health data infrastructure program and demonstration programs are being funded in each of the border states. We understand that the Congress will be considering funding U.S. implementation of the U.S.-Mexico Health Commission Act. As noted in last year's report, we concur that, in order for this concept to work, the Commission must be fully binational.

We commend these ongoing binational efforts and the proposed 1997 program enhancements addressing dissemination of environmental health information; childhood exposures to pesticides; neural tube defects; lead surveillance and intervention; and training. We also endorse the continuing need to attract health care professionals to border communities and to train community health care practitioners. Accessibility to loan repayment programs and

certification of more Health Professions Shortage Areas at the border are needed.

### **Native Americans**

Native American nations along the border still have not been included to any significant extent in planning or implementation of border programs. **We recommend again that all appropriate federal agencies accelerate efforts to ensure inclusion of the Native American nations in the border region in environmental, health and infrastructure planning and program implementation.** Because several of the tribes' lands and peoples are in both countries, we also encourage the U.S. to actively involve the Mexican national government in addressing tribal transboundary issues.

We endorse the proposal by the Tohono O'odham Nation to conduct an environmental and trade forum involving all of the southwest border tribes and commend the sponsorship by EPA and the Governmental Advisory Committee to the U.S. Representative to the North American Commission for Environmental Cooperation. We also commend the decision by EPA to provide ten percent of Fiscal Year 1996 border infrastructure funds to help meet tribal environmental infrastructure needs.

### **Transportation**

The Board's first annual report cited a number of concerns regarding interrelated regional transportation and environmental issues. For example, there are very serious problems associated with air pollution from trucks idling at border crossings, use of unpaved roads, use of leaded fuels, trucks carrying hazardous materials traveling through (and disposing of wastes in) communities and tribal lands. Drug interdiction and immigration activities in some locations have also caused trucks to divert to and seriously impact smaller border crossings. We continue to recommend that U.S. and Mexican states develop comprehensive joint plans and cross-border transportation authorities to guide

transportation policy decisions.

We commend the Department of Transportation Federal Highway Administration for its work with other U.S. agencies and with counterparts in Mexico to improve compatibility of commercial motor carrier safety standards, road signs and signals; coordinate truck weights and dimensions; coordinate compliance and enforcement activities; expedite processing of commercial vehicles at border crossings including facility improvements and use of advanced technology; and conduct joint transportation planning, including U.S. and Mexican federal and state agencies. We also note a significant number of highway improvement and border crossing projects that are being developed with both public and private funds.

### **Foundations**

While U.S. private foundations have provided some funding to Mexican and U.S. entities to encourage development of more effective nongovernmental organizations, there are still very substantial needs for enhancing the ability of communities to address development issues and improve access to needed information. U.S. income tax law restricts deductibility of charitable donations when the funds are to be spent outside the U.S. making it very difficult for nongovernmental organizations to obtain funds for transboundary projects. **We encourage changes in U.S. tax law to encourage private support to these public purposes, the creation of additional binational foundations like the U.S.-Mexico Border Progress Foundation; and technical assistance to Mexico to develop a private foundation network.**

## **INFRASTRUCTURE DEVELOPMENT**

For the past several years, both sides of the border have experienced significant developmental pressures due to industrialization, migration and population growth. Environmental, health, housing, transportation

and other infrastructure has not kept pace with this development. We believe that the interconnection of environment, health, housing, and transportation infrastructure-related problems makes it imperative that infrastructure issues be addressed more comprehensively and recommend that Border XXI be used as the appropriate integrating process for doing this.

The Board commends the Department of Commerce and its Mexican counterpart for jointly sponsoring the second U.S.-Mexico Border Infrastructure Conference last year, and urges public and private sector consideration of the conference report.

### **Inventory and Priorities**

**The Board encourages compilation of a comprehensive inventory of infrastructure needs. The needs inventory should be developed on a binational basis to assure coordination of transboundary needs and projects and maximum leveraging of investments on both sides of the border.**

**We also urge comprehensive prioritization of infrastructure needs by federal and state agencies,** at least regionally, to support a rational allocation of limited resources; to identify localities that are relatively more stressed by economic, environmental, and public health issues; and to communicate priorities to communities competing for funding.

The inventory effort should focus initially on wastewater treatment plants and sewage lines; potable water plants and distribution systems; individual hookups; and water drainage projects. Inventories of other types of infrastructure such as solid waste management, hazardous waste disposal sites, basic housing (especially colonias), and health care facilities, should also be assembled as quickly as feasible. We understand that a comprehensive survey of border transportation issues is being conducted by the U.S.-Mexico Joint Working Committee for Binational Transportation Planning.

### **BECC/NADBank**

The Border Environment Cooperation Commission (BECC), and the North American Development Bank (NADBank) have the potential to help significantly improve the border environment.

### **Border Environment Cooperation Commission**

We applaud the BECC for incorporating enhanced sustainable development criteria for review of border environmental projects, and urge application of the same type of criteria by other public and private funding entities. We also commend the BECC for initiating a program to assist smaller communities in developing project proposals. We urge that BECC, as well as state agencies and nongovernmental organizations, provide technical assistance to border communities to help them develop their *institutional* capacity to manage design, construction and operation of the facilities.

We urge the BECC to continue to identify ways to streamline its application process to encourage more rapid certification of projects to NADBank and other funding sources. We emphasize that this acceleration should not occur at the expense of an effective public participation process in the affected communities.

### **North American Development Bank**

Despite having \$1.5 billion currently available, the North American Development Bank (NADBank) has made few, very recent loans during its first two years of existence. The binational agreement establishing the NADBank requires that the Bank charge an above-market rate of interest. This requirement precludes the neediest communities on both sides of the border from use of NADBank funding. **We strongly recommend that the governments re-negotiate the NADBank's charter to authorize reduction of its interest rate to support below-market lending. We urge the governments to consider application of U.S. State Revolving Fund guidelines to NADBank operations.**

The NADBank has been asked to provide

substantial drought relief assistance funds to the state of Texas. We believe that funding this type of proposal would violate the spirit of the BECC and NADBank charters and recommend against funding

We urge the NADBank to improve its communication with border communities, and to work with the BECC to implement a coordinated outreach effort.

BECC and NADBank need to encourage greater use of alternative technologies, i.e., technologies that generally have low capital, operating and maintenance costs, as well as innovative technologies. The Environmental Protection Agency and Department of Agriculture are aware of a number of very effective alternative technologies. The BECC technical assistance program should emphasize use of alternative technologies and BECC should assure that communities are informed about alternative systems. We also encourage inclusion of alternative technologies as priority in the BECC's sustainable development project review criteria for smaller communities.

Given the significant and growing shortfall of ground and surface water throughout the region, the BECC and NADBank can and need to exercise leadership in promoting water conservation practices. In conjunction with its technical assistance program, promotion of appropriate technologies, and certification criteria development, the BECC should emphasize low water-use treatment and groundwater recharge processes, especially in water short areas.

As entities established under the NAFTA agreement, the BECC and NADBank will be evaluated shortly as part of the mandatory triennial review of NAFTA implementation. We urge the governments and the Commission on Environmental Cooperation to emphasize the importance of these institutions to achieving the overall, long term goals of NAFTA.

### **Colonias and Rural Areas:**

The rate of continuing urbanization in colonias

and rural areas, and the absence of proper urban planning and local zoning controls, is threatening the ability of the governments to provide essential infrastructure.

Since 1991, EPA and IBWC have allocated more than \$500 million to address just wastewater infrastructure problems, including over \$185 million to assist colonias in Texas and New Mexico. Additional costs for basic water service to colonias in Texas and New Mexico is estimated at more than \$500 million, and there are comparable settlements in Arizona and California. With respect to wastewater treatment, reliable estimates indicate the United States border communities will require investments of \$1.475 billion over ten years to bring them up to acceptable standards, of which \$925 million should come from State Revolving Funds (SRF) loans and tax-exempt bonds, and \$550 million from other federal and state grants and loans. Mexico estimates needed investment for border region water services through the year 2000 at more than \$442 million: \$132 million for drinking water; \$265 million for wastewater.

These estimates do not address critical air, hazardous and solid waste, transportation, or housing infrastructure needs.

Although State Revolving Fund (SRF) loan (and NADBank) debt service requirements force user fees beyond the capacity-to-pay of many residents, we continue to recommend that border state wastewater revolving funds allocate a major portion of SRF funds to *border* infrastructure needs. Previous Clean Water Act federal grants and State Revolving Fund (SRF) loans have provided substantial help to larger U.S. border communities. Unincorporated colonias and smaller U.S. communities now represent a critical financing issue.

While major *colonias* funding to date has focused on designated *colonias* in Texas and New Mexico, there are similar substandard developments lacking basic infrastructure in Arizona and California. Eighteen areas have been identified in California in Imperial, San

Diego, Riverside, and Kern counties. Arizona and California settlements receive limited funds from USDA, but not from EPA due to the failure of these states to identify colonia-like settlements.

**We recommend that federal, state and local agencies providing infrastructure funding recognize *colonias* and similar substandard developments lacking basic infrastructure in all four border states, and coordinate their individual funding programs for maximum environmental benefit.**

**We recommend that federal grant and low cost loan assistance be continued at existing levels for infrastructure, health facilities and training in U.S. colonias for at least the next ten years.** Due to their lack of access to low-cost SRF loans, tax-exempt bond revenues or significant sources of user fees, colonias and small communities need continued priority focus and subsidization. Although it was expected to play a central role, this critical funding gap is not yet being filled by the North American Development Bank. Responsible federal agencies, state and local governments should cooperate to establish mechanisms incorporating and formalizing the legal and institutional status of *colonias*.

The Board also recommends that local civic authorities in the border states seek to impose proper planning and zoning controls under state law, including urging local authorities to require private developers to incorporate necessary infrastructure into their development design comparable to the exercise of local police powers in all other areas of the U.S.

### **Private Sector Investment and Public/Private Partnerships**

**The Board believes there is a tremendous need, and potential, for substantial public-private funding and for privatized environmental infrastructure development on both sides of the border.** Federal and other public funds will be inadequate to meet the current and projected needs. In addition, private entities that have contributed to the environmental and public health problems and



that have benefited from NAFTA implementation should bear more of the cost.

The Board is pleased with the increasing BECC emphasis on private sector funding of municipal environmental infrastructure, including new criteria for certification of private sector projects and a Build-Operate-Transfer (BOT) program. The Board also believes there are significant opportunities for full privatization of hazardous waste handling and solid waste management facilities, infrastructure which are not necessarily public environmental responsibilities.

The Board notes that there has been considerable U.S. government investment in development of related economic infrastructure, including international trade routes, bridges and highways.

**We urge that the governments assure that investments in environmental and economic infrastructure be managed and balanced to help assure that economic development is sustainable.**

We strongly encourage the U.S. to promote Mexican legislation to authorize municipal bonding authority for Mexican communities. We also urge the U.S. government to consider providing tax-free status for public bonds issued in the U.S. for cross border projects and other incentives to encourage public-private and privatization efforts.

**Eco-industrial Parks: The Board supports the recommendations of the President's Council On Sustainable Development and continues to recommend the development of eco-industrial parks in appropriate places along the border to reduce pollution and costs, and to support clean economic development.** Eco-industrial parks, such as the Brownsville, Texas and Nogales, Arizona models, create a vertically integrated chain of plants wherein one plant uses another's byproducts or wastes as input. The parks create synergies among industries which can result in substantial cost savings as well as significant reductions in environmental pollution. Unfortunately, the few parks that have been initiated have lost substantial funding. To make these cutting-edge plans a reality, federal funds

are needed to help implement workable pilots.

**Housing:** The Board notes that the shortage of adequate housing underlies many of the border's environmental and public health problems. Several creative housing finance projects begun prior to the 1994 Mexican financial crisis have been discontinued or dramatically downsized. Unfortunately, neither NADBank nor the BECC have the resources or the mandate to deal with the housing problem. The establishment of zoning practices, enforcement of zoning, and creative financing through public-private cooperation are needed on both sides of the border to ease this crisis. It is also important to assure that zoning be set to preclude construction in designated flood zones.

**We recommend that the U.S. Department of Housing and Urban Development (HUD) continue to provide financial assistance and incentives for upgrading substandard housing in the colonias, and work closely with state agencies in the U.S., and with federal and state agencies in Mexico to develop mechanisms for promoting low-cost public housing construction in the border region. We also recommend that mechanisms currently being utilized by county officials to promote public housing and provide financial assistance to colonia residents be enlarged and structured as block grants, and that flexibility be provided to facilitate the combination of various federal program monies, such as those established through the Rio Grande Valley Empowerment Zone.**

The Board commends the work of various foundations and non governmental organizations to assist local communities respond to housing needs through methods such as self help, micro loans, bulk materials purchasing, etc. Moreover, the Board acknowledges the participation of certain maquiladoras in providing housing construction assistance to their employees and encourages more of these companies to provide housing assistance programs.

## **MEETING INFORMATION**

### **NEEDS**

There is a lack of needed information and awareness by residents on both sides of the border, as well as the governments, concerning border area problems and options for addressing these problems. Access to information is a critical prerequisite to effective community participation in setting priorities, selecting the most feasible and comprehensive approaches to environmental, natural resource, public health and related problems; and locating financial and technical assistance.

**The Board commends the Mexican government for establishing environmental indicators as part of its monitoring and reporting of Gross Domestic Product.**

**Outreach Coordination:** With respect to effectively reaching communities with information and soliciting their views, we encourage more outreach coordination among federal agencies, state agencies, local governments, Indian Nations, and community groups on both sides of the border. Working together, these organizations can more effectively inform wider networks about issues and can help to distribute materials so that people are better informed and prepared to make decisions. We continue to recommend establishing a federal-state-local clearinghouse network, in cooperation with the border offices of federal and state agencies, to provide more rapid transfer of information among levels of government and to local community groups in the incorporated and unincorporated areas.

Federal agencies should consider contracting with nongovernmental organizations to generate and organize public comments. Increased public communication and access to information can also help to enhance public oversight, reducing the need for government inspection programs and direct data collection.

**Internet Access:** We recommend that data be

made accessible to the public by state and federal government agencies through Internet and other wide-net systems along the border and commend several federal agencies for establishing Internet Web. However, most border communities have limited access to the technology superhighway at this time.

The Board encourages continuing support for the U.S. Department of Commerce Telecommunications and Infrastructure Assistance Program that provides matching grants to help spread information technology into communities. Federal agencies (such as the Department of Commerce National Telecommunications and Information Administration) should support necessary fiber optic cable installations in these communities, with reduced matching funds. Federal agencies should also direct surplus property computers to public access sites (e.g., libraries, schools, banks, supermarkets, and churches) and support training programs to assist Internet access by residents.

While the Board reiterates the need for providing more data to community residents, we emphasize also that the information must be useful. Reports should be made available to local organizations, libraries, and schools (in both English and Spanish if possible) that analyze the data, identify pros and cons of various options, and identify appropriate governmental and nongovernmental contacts for further information and assistance.

A recent report by the state of Texas provides grim demographic projections of population increases for the next 20 years. The report anticipates that in 20 years one-third of the population will not have finished high school, a dire projection of have and have-not's. The Board recommends more emphasis on education as an interface with infrastructural issues for border communities and meeting the tremendous need for resources for local schools.

**Use of Existing Information:** While the Board supports the collection of needed additional binational data, using common collection and analytical methods, we believe that a substantial

amount of environmental, natural resource, health and related data are available in both countries which can provide useful baseline information. We endorse the creation of the Border XXI Information Working Group and recommend that development of such an inventory of existing information is one of their highest priorities. The Board also endorses increasing the number of databases and the use of sophisticated Geographic Information Systems (GISs), but emphasizes that local citizens, as well as the governments, must be capable of getting to that information.

#### **Population Growth and Trend Information:**

Both countries need to obtain accurate data on population growth trends, especially given the flux of people in, through, and around the border zone. More adequate information is also needed linking population trends and available resources, including identifying the “carrying capacity” of the border region. The lack of information concerning long-term population trends limits the effectiveness of Border XXI to effectively plan for needed infrastructure and programs. Long term, ongoing studies need to be conducted to identify population trends and to establish baselines for federal, state, regional and local planning.

We recommend that funding be provided to the Bureau of Census, and that the U.S. negotiate joint efforts with the Mexican government and the counterpart census agency, INEGI, to conduct binational census studies, to cooperate in data analysis, and to make the reports available. We also recommend establishing permanent monitoring to track changes in population.

We recommend establishing binational Metropolitan Statistical Areas (MSAs) so that interested parties in the U.S. and Mexico can more clearly see the large binational population and economic base in the region, e.g., the Lower Rio Grande Valley, that does not appear in each individual country's data. We also encourage the governments to use economic and population data from both sides of the border in designating trade areas.

**Applied Research:** Considerable research is being conducted by U.S. and Mexican colleges and universities in the border region. Too little of this research is being applied towards solving real world border problems. In addition to the research itself being relevant to important issues, the results of this research must be accessible to the communities, other academics, and the governments. Funding sources should require that research products intended for use in border communities be bilingual.

## **OTHER COMMENTS**

#### **Coordination with the Mexican Advisory Council for Sustainable Development**

The Board and its Mexican counterpart (Region 1 of the Mexican National Advisory Council for Sustainable Development) have established ongoing communication. The two advisory committees will meet together in mid-1997 to begin development of coordinated agendas and to discuss development of joint recommendations.

#### **Commendations**

We commend EPA for establishing border liaison offices at San Diego, California, and El Paso and McAllen, Texas. We especially commend the San Diego office for its work in development of Border XXI, and its outstanding efforts in providing information and assistance to citizens and organizations primarily in Arizona and California

#### **Public Input**

The Board's meetings are open to the public; a list of public attendees at the April, 1996, August 1996, and February 1997 meetings is included as Appendix 2.

At each meeting, the Board also sets aside time to listen to concerns of members of the public and to become aware of community efforts to address environmental problems. Some examples of accomplishments presented to the Board include:

- Palomas, Mexico and Columbus, New Mexico, two small sister cities, have created a cross-border task force to work jointly on public health issues and environmental and economic development planning;
- The Transboundary Resource Inventory Project, an integrated border wide effort managed by the Texas General Land Office, is working on integration of data concerning the border through use of geographic information systems (GIS);
- The Tijuana River Watershed Project also is developing a comprehensive GIS to be shared by the U.S. and Mexico for binational watershed management planning;
- The Texas Center for Policy Studies, a research and policy organization based in Austin, is working with grassroots organizations throughout Mexico, and focusing on the border and on conservation and habitat issues;
- The California Border Environmental Corporation Committee, comprised of state level officials from Baja California, Baja California Sur, and California, is working jointly to improve communication among the states, to provide cross-border training and information, and to support environmental infrastructure projects in the region;
- The San Diego Association of Governments is providing a very effective forum for environmental and transportation planning and coordination among local communities and other governments on both sides of the border; and the Tijuana and San Diego Binational Planning and Coordinating Committee provides a forum for joint programs, information sharing, and coordination with federal and state agencies.

We commend all of the local, regional and binational initiatives that demonstrate the commitment of border communities and nongovernmental organizations to work together to improve the environment and to promote

sustainable development of the U.S.-Mexico border region.

### **In Memoriam**

We note with sadness the untimely death of Charles F. Meissner, former Assistant Secretary and U.S. Department of Commerce representative on the Board. He was dedicated to solving U.S.-Mexico border problems and was an invaluable member of the Board.

### **IMPLEMENTATION OF REPORT AND RECOMMENDATIONS**

The Board appreciates the opportunity to offer these recommendations and respectfully requests a response to this second Annual Report. The Board intends to continue to monitor implementation of the recommendations included in this and previous reports, and to advise the President and the Congress on the status of implementation in its next annual report.

## APPENDIX 1

### GOOD NEIGHBOR ENVIRONMENTAL BOARD

**Mr. James Marston, Chair**

Director, Texas Office  
Environmental Defense Fund  
44 East Avenue, Suite 304  
Austin, TX 78701

**Mr. Patrick Banegas**

General Manager  
Water and Sanitation District  
P.O. Box 1751  
1470 N. 4th Street  
Anthony, NM 88021

**Mr. Tibaldo Canez**

Director, U.S.-Mexico Border Affairs  
Arizona Department of Environmental Quality  
3033 North Central  
Phoenix, AZ 85012

**Mr. John K. Flynn**

Supervisor, Ventura County  
808 S. Victoria Avenue  
Ventura, CA 95665

**Mr. Bernard Gaillard**

Director, Secretary's Office of  
International Transportation and Trade  
U.S. Department of Transportation  
400 Seventh Street S.W.  
Washington, D.C. 20590

**Honorable William Ginsberg**

Acting Assistant Secretary for  
Market Access and Compliance  
U.S. Department of Commerce  
14th St. & Constitution Ave., NW  
Washington, D.C. 20230

**Charles G. Groat, Ph.D.**

Director, Center for Environmental  
Resource Management  
University of Texas at El Paso  
El Paso, TX 79968

**Ms. Alison Hughes**

University of Arizona College of Medicine  
2501 E. Elm Street  
Tucson, AZ 85716

**Mr. John Klein**

Assistant Regional Hydrologist  
U.S. Geological Survey  
2800 Cottage Way, Room W2233  
Sacramento, CA 95825

**Ms. M. Lisa LaRocque**

Director, Project Del Rio  
1494A S. Solano  
Las Cruces, NM 88001

**Ms. Wendy Laird**

Executive Director  
Tucson Audubon Society  
300 East University Blvd., Suite 120  
Tucson, AZ 85705

**Ms. Felicia Marcus**

Regional Administrator  
U.S. Environmental Protection Agency  
75 Hawthorne Street  
San Francisco, CA 94105

**Mr. Winston Martin**

Special Projects Officer  
U.S. Department of Housing  
and Urban Development  
800 Dolorosa Avenue  
San Antonio, TX 78207

**Mr. David Merk**

Environmental Consultant  
11814 Via Genero  
El Cajon, CA 92109

**Ms. Elsa R. Saxod**

Executive Director  
U.S.-Mexico Border Progress Foundation  
1615 Murray Canyon Road, Suite 1000  
San Diego, CA 92108

## **GOOD NEIGHBOR ENVIRONMENTAL BOARD**

**Christine M. Sierra, Ph. D.**  
Department of Political Science  
2074 Social Science Building,  
University of New Mexico  
Albuquerque, NM 87131-1121

**Mr. Alan Stephens**  
State Director, Rural Development  
U.S. Department of Agriculture  
3003 Central Avenue, Suite 900  
Phoenix, AZ 85012

**Mr. Bill Summers**  
President  
Rio Grande Valley Chamber of Commerce  
P.O. Box 1499  
Weslaco, TX 78599-1499

**Ms. M. Elizabeth Swope**  
Coordinator for U.S.-Mexico Border Affairs  
Office of Mexican Affairs  
U.S. Department of State  
2201 C Street, NW  
Washington, D.C. 20520

**Mr. Rosendo Trevino III**  
State Conservationist  
Natural Resources Conservation Service  
U.S. Department of Agriculture  
6200 Jefferson Street, Northeast  
Albuquerque, NM 87109-3734

**Mr. J. Jorge Verduzco**  
Executive Vice President  
International Bank of Commerce  
P.O. Drawer 1359  
Laredo, TX 78042-1359

**Mr. Richard Walling**  
Director , Office of the Americas  
and Middle East  
Office of International and Refugee Health  
U.S. Department of Health and Human Services  
Room 18-75, Parklawn Building  
Rockville, MD 20857

**Mr. Kenneth Williams**

Legislative Council Member  
Tohono O'odham Nation  
P.O. Box 827  
Sells, AZ 85634

### INTERNATIONAL ORGANIZATION

**Mr. John Bernal**  
U.S. Commissioner  
International Boundary and Water Commission  
4171 N. Mesa, Suite C-310  
El Paso, TX 79902

### Designated Federal Officer

**Mr. Robert L. Hardaker**  
Office of the Administrator (1601F)  
U.S. Environmental Protection Agency  
401 M Street S.W.  
Washington, D.C. 20460  
202-260-2477; 202-260-6882 fax  
E-mail: [hardaker.robert@epamail.epa.gov](mailto:hardaker.robert@epamail.epa.gov)

## **APPENDIX 2**

### **PUBLIC ATTENDEES AT 1996-1997 MEETINGS**

#### **Las Cruces, New Mexico-April 1996**

Andrea Abel, Texas Department of Health  
Larry Allen, Coronado National Forest, Arizona  
Octavio Chavez, Ciudad Juarez, Mexico  
Roger Frauenfelder, Border Environment Cooperation Commission  
Thomas Guerra, City of Columbus, New Mexico  
David Hinkel, City of Columbus, New Mexico  
Jack Long, City of Columbus, New Mexico  
Howard Ness, National Park Service  
Cyrus Reed, Texas Center for Policy Studies  
Daniel Reyna, Director, Border Health Office, State of New Mexico  
Carlos Rincon, Environmental Defense Fund  
Alice Salcido, Office of Senator Bingaman

#### **San Diego, California-August 1996**

Andrea Abel, Texas Department of Health  
Kenneth Cronin, Tohono O'odham Nation  
Vicky Estrada-Bustillo, U.S. Forest Service  
Paul Ganster, San Diego State University  
Sofia Hernandez, Texas Department of Health  
Gonzalo Lopez, City of San Diego  
Susan Phillips, California Water Resources Control Board  
Amary Reyes, SAHOPE, Baja California, Mexico  
Oscar Romo, Mexican National Council for Sustainable Development  
Nan Valerio, San Diego Association of Governments  
Richard Wright, San Diego State University  
Luis Zuniga, Sony Mexico Manufacturing Center

#### **El Paso, Texas-February 1997**

Bobby Creel, New Mexico Water Resources Institute  
Nicole Carter, Stanford University  
James Davis, New Mexico Department of Agriculture  
Miguel Escobedo, Texas Department of Health  
Ana Isabel Fonteil, Colegio de la Frontera Norte, Tijuana, Mexico  
Philip Goodall, University of Texas, El Paso  
Rebekah Hoffacker, Texas Natural Resources Conservation Commission  
Roberto Hurtado, Colegio de la Frontera Norte, Tijuana, Mexico  
April Lander, Border Environment Cooperation Commission  
Andy Mares, AYUDA, Inc.  
Ernest Rebuck El Paso Water Utilities  
Blanca Serrano, Texas Department of Health  
Marion Truxal, League of Women Voters  
Antonio Vergara, AYUDA, Inc  
Edwina Vogan, Women in Technology